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This study delineates personality correlates of attention deficit hyperactivity disorder (ADHD.) A standardized projective technique (the Roberts Apperception Test for Children (RATC) and the Conners Parent Rating Scale were administered to 52 ADHD children, ages 6-15. Results indicated that, when compared to the RATC standardization sample, ADHD children had little ability to cope with their feelings, had little awareness of problems in their environment, perceived only marginal support from their environment, were highly depressed, and perceived much aggression in their environment. The paper concludes that psychotherapeutic approaches should focus on increasing the supports available in the child's environment, relieving depression, enabling the child to appropriately express anger, and improving their problem-identifying and problem-solving abilities. (27 references) (JDD)

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# PERSONALITY CORRELATES OF ATTENTION DEFICIT HYPERACTIVITY DISORDER

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## ABSTRACT

This study delineates personality correlates of attention deficit hyperactivity disorder (ADHD). The Roberts Apperception Test for Children (RATC), a standardized projective technique, and the Conners Parent Rating Scale were administered to 52 children (48 boys and 8 girls) diagnosed with ADHD. Results indicated that, when compared to the RATC standardization sample, ADHD children had little ability to cope with their feelings, had little awareness of problems in their environment, perceived only marginal support from their environment, were highly depressed and perceived much aggression in their environment. Therapeutic strategies for dealing with these issues are discussed.

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# PERSONALITY CORRELATES OF ATTENTION DEFICIT HYPERACTIVITY DISORDER

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Attention deficit hyperactivity disorder (ADHD) is estimated at effecting at least one million children in the U.S., or 3 - 5% of school-aged children, and is one of the most researched of disorders effecting children (Varley, 1984). It is clearly a heterogeneous disorder, encompassing symptoms such as inattention, impulsivity, distractibility, and hyperactivity, and frequently overlaps with anxiety disorders and conduct problems (e.g., Stein and O'Donnell, 1985). Although it is highly researched, it remains etiologically enigmatic, being blamed variously on genetics (e.g., Cantwell, 1975; Mattes & Fink, 1987); neurobiology and neuroanatomy (e.g., Zametkin and Rapoport, 1987; Quay, 1988), fetal and neonatal stress (e.g.,

Werner et al., 1977; Sameroff and Chandler, 1975) and diet (e.g., Feingold, 1975; Egger et al, 1985). Psychological factors of causality, i.e., the quality of early familial relationships— while once universally unpopular are receiving increasing attention, at least as they apply to a subgroup of children with ADHD (Jacobvitz and Sroufe, 1987; Lahey et al., 1988; Lambert, 1988).

We know that the most common treatment of ADHD children is stumulant medication, including methylphenidate hydrochloride, dextroamphetamine, and magnesium pemoline (Dulcan, 1985). Recent reports demonstrate the utility in some cases of antidepressants, especially desipramine (Donnelly and Rapoport, 1985; Pliszka, 1987). The use of stimulant medication remains controversial in some circles, but it is generally accepted that short-term improvement in the behavior of ADHD children can be obtained with the use of psychotropic medication. School intervention, including specially designed behavioral programs, is almost always warranted, and supportive psychotherapy-- often including training and support for the parents, is frequently indicated. Dietary treatment is popular, although it seems to be effective in only a small percentage of cases.

Research on ADHD, under its various historical labels (e.g., minimal brain dysfunction, hyperactivity, attention deficit disorder with and without hyperactivity, etc.) has focused largely on etiology, diagnosis, prevalence, drug effects, and treatment, but there is a relative dearth of literature on the personality correlates of ADHD. Even if an entirely physiological causality is assumed, the question

of how those physiological imperatives effect one's self-concept remains. While it is now well established that the symptoms that manifest themselves in an ADHD diagnosis are substantially different than the behavioral norm, little is known about the degree to which these symptoms relate to a child's own perception of anxiety, depression, dependency, and feelings of being supported. It is only through answers to these questions that we can understand how best to work with these children psychotherapeutically.

Research by Louis Gottschalk et al. (1984) approached the personality correlates of ADHD (ADD in their study) in an interesting and productive way. They examined speech samples of both ADD children and a matched normative sample, asking the children to talk about their lives for five minutes. Raters content-analyzed the transcripts according to a standardized instrument, and found that the 13 ADD boys in the study had significantly greater mean scores than the normative group on factors of cognitive impairment, social alienation-personal disorganization, and total depression. Of the depression scales included in this instrument, the ADD children expressed that they were more hopeless, ashamed, guilty and inwardly hostile.

Several studies attempted to discern differences between attention deficit disordered and other behaviorally disturbed children on the Personality Inventory for Children (PIC), a parent-completed multidimensional objective personality measure similar to the MMPI. Voelker et al. (1983) found that children with attention deficit disorders scored higher than normals on the hyperactivity subscale of

the PIC; this, however, is a self-validating finding because the hyperactivity subscale was normed for this purpose. ADD subjects also tended to score higher than clinical controls on the delinquncy, adjustment, and social skills scales and lower than others on the withdrawal scale (Wirt et al., 1977). Breen and Barkley (1983) demonstrated that hyperactive boys scored higher than normal boys on all PIC scales.

Nieman and Delong (1987) used the PIC to attempt to differentiate children with mania from children with ADDH. They found that they were able to identify 100% of the subjects with mania, but 20% of ADDH children were incorrectly classified as manic. Three variables—aggression, psychosis, and hyperactivity, differentiated manic children from ADDH children effectively.

Forbes (1985) compared ADD boys not only with clinical controls, but also with a subgroup consisting of children with severe discipline and behavioral problems. He found that the only difference between ADD boys and other boys with severe problems was that the ADD boys were more hyperactive on the PIC.

A sociometric perspective may also be useful in understanding the experience of ADD children. Johnston et al. (1985) used peer ratings on the Pupil Evaluation Inventory to find that ADDH children were nominated more on the Aggression factor and less on the Likability factor. ADDH boys received more nominations on the Withdrawal factor as well. Their research indicates that ADDH children were perceived by peers as significantly disturbed on a variety of items, but doesn't

reveal how ADDH children perceived themselves.

More comprehensive measures, albeit with fewer subjects, were undertaken by Lahey et al. (1984) in an attempt to discern differences between ADD children with and without hyperactivity. The researchers found that when compared with matched normals on a battery of teacher ratings, peer ratings, and self-report measures, there were marked differences in patterns of characteristics for the two ADD groups. ADD children with hyperctivity were more aggressive, bizarre, guiltless, highly unpopular, and poor school-performers; ADD children without hyperactivity were more anxious, shy, socially withdrawn, moderately unpopular, and poor in sports and school performance. Both groups exhibited depression and poor self-concepts.

The results reported above are based on an examination of ADHD primarily from behavioral observation. Studies of the phenomenology of ADHD children are rare. This study is an attempt to delineate personality correlates of ADHD children through the use of standardized projective testing, thus yielding a view of the ADHD phenomenon through the child's eyes, while retaining the ability to generalize due to the use of standardized measures.

## Subjects

The sample consisted of 52 children, 44 boys and 8 girls ranging in age from 6 to 15. The mean age was 8.7 (s.d. = 2.4). A saturation sample was drawn from all children referred to a mental health clinic diagnosed as ADD with hyperactivity while DSM-III was in effect, and ADHD when DSMIII-R was released. The diagnosis was made after an initial interview, including a history of the presenting problems and a brief developmental history. DSM-III and DSM-IIIR criteria must have been demonstrated to exist through documentation of the symptomotology. An independent reviewer checked the consistency of the diagnosis with the presenting problems and history. Diagnosis was made by clinicians not participating in this study.

## Measures

The Roberts Apperception Test for Children (MacArthur and Roberts, 1982) is one of a new breed of apperception tests in which responses to stimuli are categorized and standardized in relation to a large sample of children. The test itself is a projective test similar to the TAT with cards designed to elicit projective material on a variety of realistic, everyday but potentially conflictual dimensions, including peer relations, relations with parents, schoolwork, etc. A scoring system permits scoring on the following scales derived from content analysis: Adaptive scales, including

reliance on others, support, limit-setting, problem identification, resolution 1 (magical thinking), resolution 2 (a constructive resolution), and clinical scales, including anxiety, aggression, dependency, rejection, and indicators of severe pathology, such as atypical responses, maladaptive outcome, and refusal.

The other measure used in this study was the 28-item version of the Conners' Parent Questionnaire, a checklist completed by parents designed to measure hyperactivity (Goyette, Conners and Ulrich, 1978).

## Procedures

Routinely, all children who are referred to the Verdugo Mental Health Center, a large mental health center in the Los Angeles suburbs of Glendale and Burbank, are administered both the RATC and the Conners Parent Questionnaire.

## Results

The 10-item Hyperkinesis Index of the 28-item revised Conners parent rating scale was utilized in this study. The mean Conners score for the ADHD children was 20 (sd = 5.3).

Results indicated that, when compared to the standardization sample, ADHD children differed significantly ($p < .05$) on the unresolved ($t = 42.8$), resolution 2 ($t = 27.6$), depression ($t = 26.8$), support-other ($t= 17$), rejection ($t = 12.5$), problem identification (t

= 12.3), aggression (t = 11.6), and anxiety (t = 9.4) scales of the RATC.

Two spheres may be examined in attempting to understand the results of the RATC. The first is a more cognitive, or problem-solving dimension, and the second relates to personality variables. On the cognitive dimension, the results of the RATC indicate that ADHD children have more difficulty than normals identifying problems. Even when problems are identified, ADHD children seem to simply not solve them. In the rare instances when problems were resolved, they used magical thinking, i.e., there was no mediating process utilized.

When examining the more clinical aspects of the RATC, the most marked result was the ADHD children´s feelings of depression. Not only did they appear more depressed than the standardization sample, but also were signifanctly more depressed than children in a more heterogeneous clinic sample (MacArthur and Roberts, 1982). An example of a depressed response is one given by an ADHD child in response to a card depicting a boy looking at an open book with other books and papers on the table in front of him. Where most children report a boy doing his homework, perhaps with some anger and frustration, a child in this study responded:

"Does not want to do his homework. He is definitely sad and he´s mad and he´s sleepy on top of it and he has a mess of homework."

This sample also scored high in feelings of rejection. The

pattern of being unable to resolve problems, depression, and rejection is identical to a pattern found by Wong (1985) in her study of children with learning disabilities.

Other notable differences between the ADHD group and the normative sample were in relation to coping or adaptive skills. ADHD children tended to be less able to rely on external support systems and did not see support in general to be available or responsive to their needs.

In general, the results of the RATC indicated that ADHD children were experiencing a great deal of aggressivity, depression, and feelings of rejection, but have limited resources to cope with these feelings. These findings apparently match the findings of Gottschalk et al., whose ADD subjects were found to be more depressed in the content of their speech in that they expressed more hopelessness, shame, guilt, and inward hostility.

The results of this study indicate that a positive impact should result from psychotherapeutic approaches that focus on increasing the supports available in the child's environment, and making these supports consistent and reliable. Supportive psychotherapy aimed at relieving depression and appropriately expressing anger should also be effective. It also seems important to address the problem-identifying and problem-solving abilities of ADHD children. Cognitive techniques designed to enhance these abilities may be made part of an educational and/or psychotherapeutic regime.

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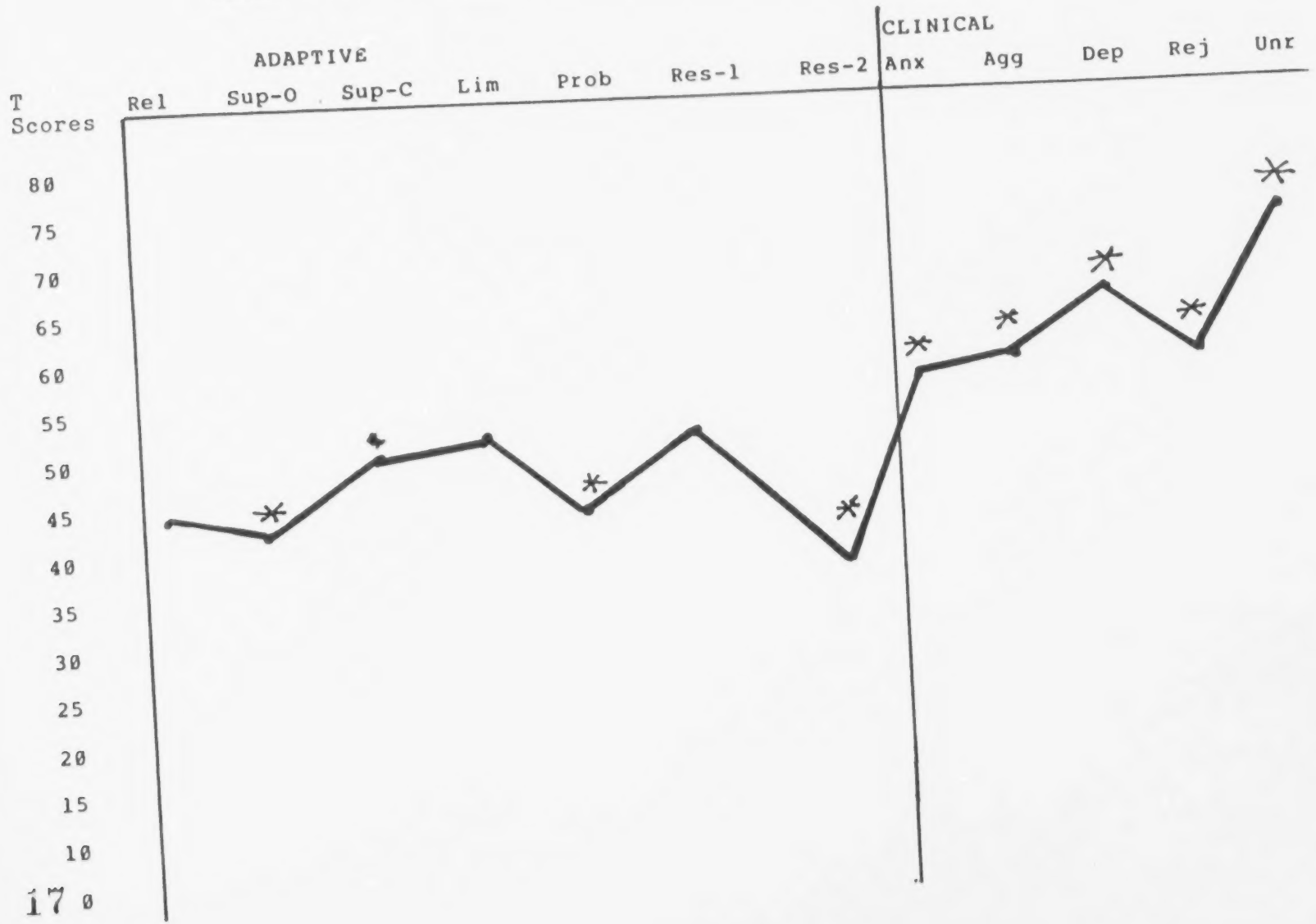
PROFILE OF MEAN ROBERTS APPERCEPTION TEST T-SCORES FOR ADHD CHILDREN

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